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ABSTRACT

Six papers on graduate education are presented from the George Mason University (Virginia) annual conference on nontraditional interdisciplinary programs. The papers and authors include: "Management Education: A Non-Traditional Graduate Program for the Non-for-Profit Manager" (Susan Calkin); "'Pracademics': the Role of the Adjunct Faculty in Weekend Executive Programs" (Peter J. Nowak); "A Personal Approach to Continuing Education" (Martyn O. Hotvedt); "An Outline of a Non-Traditional Graduate School for Engineers and Related Professionals" (Raymond C. Watson, Jr.); "Graduate Liberal Studies--Graduate Liberal Arts" (Phyllis O'Callaghan); "Prerequisites and the Nontraditional Student" (Robert S. Trullinger, Jr.). (LB)

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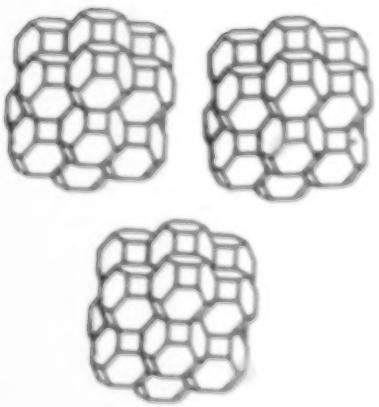
Non-Traditional Graduate Education: A Frontier for the 1980's



Edited by
James W. Fonseca

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Selected Papers from the Conference on Non-Traditional Interdisciplinary Programs
held in Arlington, Virginia
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Sponsored by the Division of Continuing Education

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NON-TRADITIONAL GRADUATE EDUCATION:

A FRONTIER FOR THE 1980's

Edited by
James W. Fonseca

Technical Editor:
Christoper J. Thaiss

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Division of Continuing Education
Fairfax, Virginia 22030

FOREWORD

This volume represents the research, practices, and experience of a number of educators whose expertise is in non-traditional education, one of the most exciting areas on the frontiers of higher education. George Mason University is privileged to serve as host at this Second Annual Conference on Non-Traditional/Interdisciplinary Studies. The conference attendees whose papers are presented here will make the conference a thought-provoking and dynamic educational experience.

Now that non-traditional, interdisciplinary, and external degree programs are generally accepted as a part of American higher education, we need to focus even more closely on how we can maintain and measure academic excellence in such programs. Many of these papers share the discoveries of those of us who must attempt to evaluate our programs.

As the non-traditional becomes more traditional in higher education, we need to look further out on the frontier to find new and better ways to serve students. Most jobs require skills from a number of disciplines, and this will certainly be the pattern in the future. Highly motivated adults are capable of determining what they need in their higher education. What is important is what a student has learned and not how or where he learned it. Increasingly, private businesses, companies, and civic groups are developing their own educational programs. In many ways, these programs reflect a lack of responsiveness from our institutions, but they also represent people sharing their special expertise in times and places where the need is apparent. Perhaps the phenomenon of private business offering the majority of post-secondary education in our age presents an opportunity to those of us in non-traditional education to forge new partnerships and new linkages. In a real sense, we at George Mason view this conference as part of our effort to contribute towards new partnerships in education.

This conference is the result of the idea and work of Ms. Sally Reithlingshoefer, Assistant Director, Division of Continuing Education, and Dr. James Fonseca, Director of Individualized Study Degree Programs, who together planned and directed every aspect through the completion of this volume. For all of us, I express my gratitude to them, and I look forward to seeing many of you again at this annual conference.

Robert T. Hawkes, Jr.

Robert T. Hawkes, Jr.
Dean
Division of Continuing Education

TABLE OF CONTENTS

MANAGEMENT EDUCATION: A NON-TRADITIONAL GRADUATE PROGRAM FOR THE NOT-FOR-PROFIT MANAGER
Susan Calkin 1

"PRACADEMICS" THE ROLE OF THE ADJUNCT FACULTY IN WEEKEND EXECUTIVE PROGRAMS
Peter J. Nowak 4

A PERSONAL APPROACH TO CONTINUING EDUCATION
Martyn O. Hotvedt. 11

AN OUTLINE OF A NON-TRADITIONAL GRADUATE SCHOOL FOR ENGINEERS AND RELATED PROFESSIONALS
Raymond C. Watson, Jr. 16

GRADUATE LIBERAL STUDIES - GRADUATE LIBERAL ARTS
Phyllis O'Callaghan. 28

PREREQUISITES AND THE NONTRADITIONAL STUDENT
Robert S. Trullinger, Jr. 37

MANAGEMENT EDUCATION: A NON-TRADITIONAL GRADUATE PROGRAM FOR THE NOT-FOR-PROFIT MANAGER

Susan Calkin

American Heart Association
Dallas, Texas

There is a clear need for management education directed towards professionals employed by not-for-profit organizations. Over the past fifteen years, there has been a rapid growth of the non-business, non-government, third sector. In 1982, Peter Drucker estimated that one in six professionals in the United States was employed in that sector. He also pointed out that voluntary agency management was more complex than that of business or of government agencies. "The service organizations require better management - and different management - than other sectors," he wrote in The Wall Street Journal.

The professional staff of voluntary agencies organize the efforts of 84 million volunteers and several hundred thousand full-time agency workers. They administer budgets which, in 1981, totalled about $130 billion. And, as government decreases its role, their task will increase quantitatively at the same time as they have to meet the qualitative changes brought about by technological, legal, and demographic developments. The agency professional, who must recruit volunteers ranging from the corporation president to the blue collar worker, must be a credible professional who expends limited funds and personnel wisely while maintaining a humane sense of mission.

The not-for-profit manager does not have the direct control of the manager in the business world. National voluntary agencies often consist of highly autonomous local units. Some national managers cannot even hire or evaluate senior managers at the local level. And, at every level, agency managers must find intangible ways of rewarding performance to retain competent staff that could earn more money elsewhere.

Where can these professionals get the training to meet the high demands of not-for-profit management? More than half of the voluntary agency professionals are women (under-represented at the executive level of the third sector, as in business and government), most have bachelor's degrees, but few have managerial or administrative training. The need for management training is clear - and, as clearly, it has not been met.

A 1974 study by the National Information Center on Volunteerism showed that one hundred or so colleges and universities offered courses, workshops, and certificate or degree programs for agency managers. In 1976, however, few of the schools mentioned in the study offered any courses or programs for agency managers, while many of the so-called programs that did exist consisted of one or two special courses or seminars in programs that otherwise ignored the third sector. This state of affairs was the result of the failure of programs to secure adequate

institutional support from both agencies and schools. The programs fell short in developing curricula to meet agency managers' needs and in providing delivery systems for adults employed full-time and who travel frequently, working nights and week-ends (as voluntary agency staff must do in order to meet with volunteers who are busy at their own occupations during normal working hours).

The failure lies with both the voluntary agencies and educational institutions. There is a reluctance on the part of the agencies to set and reward high performance standards, so students who spend money and time on professional development feel unappreciated and unrewarded in their own workplace. And colleges have not perceived the market. Many have preconceived notions of programs content which can fail to distinguish not-for-profit management from that of business or public administration. Scheduling needs are not sufficiently taken into account. And even educational programs which satisfy the agencies and students can go under because of their weak position in a college's formal structure. Functioning programs, such as Harvard University's program for United Way managers, are often too expensive and often focused too sharply on senior management. At the other end of the spectrum, there are community college courses which may be too basic for the mid-level manager and which may not distinguish between professional staff and volunteers. Like the business sector, the third sector has had to resort to the "shadow university" of professional training.

Degree programs can benefit voluntary agencies nonetheless. University programs can provide expert help in teaching process skills and content. The awarding of a degree can provide a legitimate professional credential which, in turn, can help in the recruitment of highly motivated people for careers in not-for-profit management. University courses can also help agency managers see beyond their immediate, daily jobs and view their organizations comprehensively, beyond their specific concerns. Degree programs can also benefit educational institutions by providing a group of new, mature students. A work-based program can identify strengths and weaknesses in curriculum and delivery systems, and increase the relevance of classroom learning to the workplace. The third sector provides faculty unlimited opportunities for research and publication. Finally, there is the ideological congeniality between educational and voluntary institutions, as both exist to enrich the quality of life.

With limited funds and time, the not-for-profit organization needs to know what an appropriate management program should produce. What is a successful voluntary agency manager and how can such be developed? Numerous studies have shown that success in business programs - which have the strongest management curricula - does not correlate with successful management in the profit sector, so business programs should not be adopted wholesale. To determine what constitutes excellence in not-for-profit managerial performance, the American Heart Association, externally funded by the Fund for the Improvement of Post-Secondary Education, worked to develop a competency model which identifies the characteristics and skills leading to superior agency management which

programs can teach. With McBer and Co. of Boston, a model was produced that is not a job-analysis, but a behaviorally based model articulating the behaviors a successful manager demonstrates in performing the tasks required of the job. Studies by David McClelland and McBer and Co. demonstrate that " . . . the amount of knowledge one acquires of a content area is generally unrelated to superior performance in an occupation and is often unrelated even to marginally acceptable performance." There is, of course, a minimum level of knowledge required for satisfactory discharge of work responsibilities, so the task of education is not merely to impart this knowledge but to do so in such a way as to have impact on the student's professional life.

As part of its FIPSE grant, AHA sought to match agency needs and collegiate resources to integrate content, process, and competency. The method used has been the Request for Proposals, in which essential and desirable criteria for a program were listed and universities were asked to respond as to their willingness to enter a sponsored relationship. The essentials were accreditation, accessiblility to AHA staff, reasonable cost, credit for generic courses from local institutions and for life/work experience (including AHA training courses). In other words, the needs of the student/agency staff person was the starting point.

The responses to the RFP were evaluated by AHA staff, educators, and staff from other agencies through blind ratings. The result was the selection of Central Michigan University as the first school to offer a master's in voluntary agency management (in the Master's Program in Management and Supervision with a concentration in Voluntary Agency Management). The program is structured to have on-the-job application. Required courses are in an intensive format of one-week meetings following several weeks of pre-work. The program is now entering its second year; it began with a pilot group of twenty-five students (from among seventy-five applications) from AHA. The program is now open to other AHA staff and to employees from other organizations.

The American Heart Association continues to look for other universities which can respond to the RFP, now altered to include schools that have only regional scope (now that the national audience can be served by CMU). All programs will be subject to an evaluation which must respond to a variety of questions. Is there a value-added component to the program? That is to say, does the program develop more effective managers? Are the students' knowledge and competencies improved? Evaluation will also examine whether or not the university partnership is cost-effective. Is it providing resources that AHA cannot more reasonably duplicate? The program also should satisfy the university.

Programs in not-for-profit management provide an opportunity to develop education that is innovative and effective. If seriously undertaken, it can only enhance the performance of both the profession and the university and improve the delivery of social and educational services.

"PRACADEMICS"
THE ROLE OF THE ADJUNCT FACULTY
IN WEEKEND EXECUTIVE PROGRAMS

Peter J. Nowak

Suffolk University
Boston, Massachusetts

Introduction

Executive education programs are designed to meet the needs of midcareer middle and upper managers. They vary from two week non-credit programs to entire two year MBA degree programs. The emphasis is on practical application of current management theory and techniques. Faculty for these programs include both full-time academics and part-time practitioners. The part-time adjunct faculty perform an important role in these programs because of their pragmatic approach. The student participants in Executive programs require knowledge that is useful to them in their positions as managers. Any attempt to teach them as you would traditional college age students would be a mistake. The adjuncts' roles are important because they are not bound by traditional teaching methods. In many cases they are contempories of the participants they are teaching.

This paper will deal with the unique role of the practitioner/academic in a non-traditional program; specifically, a Saturday-only Executive MBA Program where the relationship between participants and adjunct faculty is very important to the success of the program.

Suffolk University's Executive MBA Program

The Executive MBA Program offers an intensive and challenging course of study for middle and upper-middle managers. Program participants continue to hold responsible positions while pursuing a rigorous 15 to 28 month program of advanced management education leading to the Master of Business Administration degree. Classes are held all day Saturday to accommodate the schedules of working professionals.

Started in 1975, the Executive MBA Program at Suffolk University is the oldest in New England. It continues to strive for excellence in a pragmatic and professional way. The diversity and high caliber of the student body continues to be the trademark of Suffolk's Executive MBA.

Participants represent a large number of industries and organizations and come from a wide variety of undergraduate institutions (See Appendix I). Almost 30% of the Executive MBA participants have other graduate degrees. Participants attend four eleven week terms per year and can be admitted in October, January, April, and July. Those participants with

undergraduate degrees in business who fulfill all the prerequisites can complete the program in five terms. Participants with no course work in business finish after ten terms or 28 months.

Classes meet only on Saturdays. Ten sections are offered each term; five morning sections and five afternoon sections. The ratio of fulltime faculty to adjunct faculty varies. Most terms have 50% or more adjunct faculty members teaching. Variance is due to full-time faculty schedules and availability of adjuncts.

Participants' View of Adjuncts' Role

Students currently enrolled in the program were surveyed for their views of the role of adjunct faculty in the Executive MBA Programs. When asked how important adjunct faculty were to the Executive MBA Program, an overwhelming number (88%) responded "very important." This degree of importance was based on the constant exposure of adjuncts to the business world. They were cited as providing leadership role models. Also relating "real world" experience to text materials was important to participants. For the most part, adjunct faculty provide a broader perspective on the text material to the students that do pure academics without actual business experience. Participants commented that the adjunct faculty had a better "feel" for their needs as professionals.

When participants were asked to compare an adjunct's academic credentials with his/her work experience, only 17% said academic credentials were important, while 64% said that work experience was "very important." The adjuncts' ability to share experiences with Executive MBA participants was seen as very important. Participants appreciated adjunct faculty who could take a theory and explain its application to their organizations.

The positions adjunct faculty members held in their particular organizations were seen as somewhat important but not extremely so. Those participants surveyed thought that the number of years experience in the area they were teaching was more important than the title or rank adjuncts held.

Almost 30% of current Executive MBA students said they had had professional contact with adjunct faculty outside their classroom experience. Seventy-seven percent of current students said they would use adjunct faculty as professional resources if needed. They said that they had used adjunct faculty members as resources both for other academic work and for professional needs.

Career advising and networking were two examples of how adjunct faculty were used as resources. This further usefulness adds to the success of the program and the favorable feeling participants and alumni have for it. Participants tend to see adjunct faculty as more than just

instructors. This is important because in some cases these people may be the only contact participants have with the university.

Seventy-five percent of those surveyed agreed that the teaching methods used by adjunct faculty better met their needs than methods used by full-time faculty. Emphasis on class participation was given as an example. Moreover, projects which were applicable to their jobs were favored by Executive MBA students. Greater use of the case study method by adjunct faculty was seen as a better way to learn new management techniques. This pragmatic approach is extremely important to participants in the program who come from government, non-profit organizations, human services, and other non-business areas. These persons are often attempting to change careers to the private sector and see the methods these "real world" practitioners employ in their instruction as vital to that transition and re-education.

Alumni View of Adjuncts' Role

Alumni who responded to the survey echoed the view of current participants. They saw the role of adjunct faculty from business and industry as "very important" to the success of the program. They gave the same reasons: "real world" experience, relating theory to practice, giving practical applications, providing depth to text and cases, and providing a meaningful learning experience. Alumni also said that they saw adjunct faculty as important resources for both academic and professional development. Many mentioned that they had made lasting professional relationships with adjunct faculty whom they had learned from during the Executive MBA Program. In some cases adjunct faculty assumed the role of mentor even though many of the participants were well established in their careers and their organizations. Looking back on the Executive MBA Program, alumni saw adjunct faculty as having had an important effect on their careers as well as their education.

When both current participants and alumni of the Executive Program were asked to compare adjunct faculty to instructors they had had in either undergraduate or other graduate programs, 23% said that adjuncts were far above average and another 58% said they were above average. Once again the lack of "real world" experience associated with the fulltime "pure" academic was the major reason given.

Relationship With Administration and Full-Time Faculty

The relationship between part-time adjunct faculty and the administration is very good. Not only are adjuncts viewed as good instructors, but they are also seen as a vital link between the School of Management and the business community. Adjunct faculty members provide an excellent resource as advisors to the administration and to full-time faculty members. They provide feedback on current trends and on the

needs of the business community. Adjunct faculty serve a valuable role in providing outreach to colleagues and associates within their organizations. They often help solidify good relationships between the school and corporations, this rapport being important in recruiting new students. Full-time faculty find adjuncts to be good resources for consulting work and research projects.

Criticism

Adjunct faculty members are not above criticism. Some participants and alumni commented that some adjuncts were very successful professionally but were not good teachers. A market manager with twenty years of business experience may not be a good marketing instructor. Those surveyed acknowledged that some adjunct faculty were a "fount of knowledge" but were unable to communicate that knowledge effectively. Others had problems with the student/faculty relationship. Being a contemporary of your students in some cases can make teaching Executive MBA's difficult. The various levels and backgrounds of Executive participants are other obstacles faced by adjuncts. You have to be an experienced and perceptive instructor in order to realize and meet the expectations and needs of those from various levels and backgrounds. The teaching methods used by some adjunct faculty were also found to be weak at times. At times instructors of adults tend to be too lecture-oriented, probably because most are chosen for their knowledge of subject matter without regard to their communicative ability. Another weakness mentioned was that adjunct faculty were sometimes too understanding of the Executive students' work/study load and became too lenient. Others found adjunct faculty relying too much on student participation. Another weakness was the difficulty adjunct faculty had in maintaining continuity. Moreover, current participants criticized adjunct faculty for not always being available when needed. Since most adjuncts are busy executives themselves, it is not always possible to depend on their availability during the work week. Their busy schedules also caused problems with regard to their lack of preparation for class on Saturday.

When selecting adjunct faculty for weekend programs it is important to orient them to the time commitment of teaching. Candidates should be carefully screened to make sure that they are aware of the responsibility they have and the commitment they must make. They should also be judged on their ability to interact with participants and on their communication skills. Placing adjunct faculty in the proper subject area is important (See Appendix II). Many times good adjunct faculty have not done well because they have been put into teaching situations which did not match their abilities. In a majority of cases adjunct faculty are very good, but are unable to cope with negative situations. When this occurs, participants are very aware and very critical, and the administration needs to be responsive. Poor performance by adjunct faculty cannot be disregarded. Since they are part-time instructors, adjustments can be made quickly.

Summary

Part-time adjunct faculty play a vital role in the success of a nontraditional program such as a Saturday-only Executive MBA Program. The participants in this type of program almost dictate the use of the adjunct instructor. Although full-time faculty can be successful in the Executive MBA Program, participants and alumni overwhelmingly prefer practitioners from business and industry. The maturity and experience of participants coupled with the intensity of the program schedule make adjunct faculty more successful than full-time faculty. The "pure" academic is unfamiliar with the demands and challenges of Executive MBA participants. Participants look for the pragmatic approach to instruction and appreciate the "real world" experience adjunct faculty bring to the classroom. If full-time faculty are used, they should be senior faculty members who have had a number of years of teaching experience as well as business experience. Ideally, a good mix of this type of full-time teacher with part-time adjuncts makes an excellent faculty. These "Pracademics" make the Executive MBA Program the success it is.

APPENDIX I

EXECUTIVE MBA PROGRAM

Student Profile 1981-82

	1981-82	1980-81
Number of Applicants	198	196
Number Enrolled:	88	83
Male:	60	61
Female:	28	22
Average Age:	32.6	33.6
Average Years Work Experience	9.2	9.6
Average GMAT Score:	505	507
Average Undergraduate GPA	3.1	3.1
Percent of Tuition Support:		
1- 25%	3	3
26- 50%	4	10
50- 75%	11	7
75- 100%	43	45
No Support	20	16

Undergraduate Colleges:

Assumption College
Baldwin-Wallace College
Bentley College
Boston College (6)
Boston State (2)
Brandeis University
Bridgewater State
Clarkson College
College of Worcester
Framingham State
Fairleigh Dickinson University
Georgia Tech
Hobart College
Lesley College
Massachusetts College Of Pharmacy (2)
Merrimack College
Middlebury College
Nasson College
Newton College of the Sacred Heart
Northeastern University (11)
North Texas State
Ohio State
Pennsylvania State University
Salem State
Simmons College
Smith College (2)
Southeastern Mass. University (3)
St. Michael's College (2)
St. Joseph Seminary
Suffolk University
SUNY-Buffalo
Syracuse University
University of Bridgeport
University of Colorado
University of Connecticut
University of Dayton
University of Massachusetts (5)
University of Michigan
University of New Mexico
University of Puerto Rico
University of Tampa
Worcester Polytechnic Institute
Xavier University

Graduate Schools/Degrees

Boston College	M.Ed., M.A.
Boston University	M.F.A., L.L.B., M.S.M.E., J.D.
Emerson College	M.A.
Harvard University	C.A.S.
Mass. College of Pharmacy	M.S.
Northeastern University	Ed.D., M.Ed.
Rensselaer Polytechnic Institute	M.S.
Rutgers University	M.L.S.
Suffolk University	M.Ed., M.A.
University of Bridgeport	M.A.
University of Connecticut	M.A., M.S.
University of Hawaii	M.L.S.
University of Michigan	M.S.
University of Notre Dame	Ph.D.
Weston College	Th.M.

Note: Appendix II (list of approximately 70 job titles and associated organizations) and Appendix III (list of 13 adjunct faculty and their teaching specializations) are available, by request, from the Editor.

A PERSONAL APPROACH TO CONTINUING EDUCATION

Martyn O. Hotvedt

University of Texas Medical Branch
Galveston, Texas

The debate in continuing medical education is not over the need for it — because keeping medical skills current is generally conceded to be the professional responsibility of all practicing physicians — but over the best method to attain this goal. This paper describes a method to help practicing physicians develop a personal approach to managing their continuing medical education.

The University of Texas Medical Branch at Galveston has developed an Academy of Continuing Medical Education. As its name suggests, the Academy is intended to be a school for continuing one's education in medicine. It offers planned, individual curricula as an alternative to traditional continuing medical education programs which have tended to be episodic in nature, just offering short courses and conferences to groups of physicians.

The Academy helps each physician design an individual curriculum tailored to his or her needs. The first phase of the program assesses the needs of the physician both in subject matter and learning style. The subject matter needs may be determined by use of the Individual Physician Profile (developed by the Department of Postgraduate Medical Education of Wisconsin)[1] or by several other methods developed by the Academy staff. The learning style needs may be determined by use of the Productivity Environment Preferences Survey (developed by Rita Dunn, Kenneth Dunn, and Gary E. Price), the Birkman questionnaire (developed by Birkman and Associates, Inc.), or by several other methods developed by the Academy staff.

In addition to completing any of these surveys, physicians assign priorities to a list of subject matter areas, ranking them according to their perceptions of where they need further education. Individual educational programs are then developed based on this information and the unique needs of the physician.

The profile of the individual physician's learning style will help determine the method by which the education will be offered to that physician. The Academy makes use of all possible educational methods. For example, physicians who prefer a traditional learning style will begin their educational tasks by meeting the faculty member who is an expert in a particular subject matter. A plan will be developed between the faculty member and the practicing physician. Staff of the Academy will be in attendance at the planning meeting, will help develop the curriculum, and will procure the appropriate educational materials. The faculty member is likely to begin by recommending reading material which

can be studied at the physician's home base (office, community hospital, or home).

After the appropriate background material has been read and learned, the next step may be for that physician to attend a conference or short course on the subject, or it may be appropriate for the physician to spend a day or more with the faculty member at a teaching hospital, observing and gaining experience in the skills and clinical decision-making aspects of the subject. This could include hands-on experience under the guidance of an expert. The concept can easily be expanded to include on campus mini-residencies, if these seem appropriate (Figure 1).

A physician with another learning style might work out a plan with the faculty advisor to use audio and/or videotape materials. In terms of audiovisual materials, the Academy emphasizes video cassette programs, synchronized slide-tape programs, and audiotapes. Audiovisuals may be a better way for some physicians to learn, but appropriate hardware is required. When physicians indicate a desire for these less traditional educational tools, every effort is made to have them available. Participation in appropriate short courses or seminars and hands-on experience on campus, under the guidance of faculty advisors, may round out the program (Figure 2). The key to all educational activities is the specific need of the physician based on his or her practice, perceptions of needs, and learning style.

Some physicians do their best learning in small groups. Because a basic principle of the Academy is to help physicians learn and at the same time allow them to stay in their home locations whenever possible, small learning groups are being encouraged in community hospitals. In these cases, much interaction between the faculty and the physicians participating in the program occurs over the telephone.

With the Academy in its second full year of programming, there are 160 physicians involved in some phase of the program. Although the majority of the physicians (146) are from Texas, physicians from Indonesia, Peru, Canada, and Mexico have also shown interest. Of course, most of the program development done for physicians out-of-state is based on home study rather than on the other options available to physicians closer to Galveston.

In all, the Academy of Continuing Medical Education at The University of Texas Medical Branch in Galveston is providing individual practicing physicians with an organized, comprehensive educational system of continuing medical education. The underlying principle of this system is that education for each individual physician is tailored to the needs of that individual. Rather than attending a random series of short courses over a year or two, physicians systematically attend to their specific educational goals. If their programs are based appropriately on their needs and practice, they are able to learn exactly what they need to learn in order to provide the best care to their patients in the most effective manner. In this way, physicians are able to develop a personal

Fig. 1 - Step-by-step educational planning for Doctor "A"

NEEDS ASSESSMENT - SUBJECT MATTER - LEARNING STYLE	Doctor "A" decides that he needs an update in procedures for handling common emergency situations, as he is seeing more than the usual number of these kinds of cases in his practice. He prefers to learn by reading and by hands-on experience.
DIDACTIC INFORMATION	Several journal articles on the topic are suggested for reading by the director of the emergency room who is the faculty member helping Doctor "A." Doctor "A" also attends a conference on emergency medicine.
IMPLEMENTATION OF PRACTICAL INFORMATION	Doctor "A" spends two 3-day weekends working in the emergency room of the medical center under the guidance of the emergency room director.
EVALUATION	At the end of each phase, the educational activity is evaluated to determine if Doctor "A"'s needs have been met. If so, the planning process begins again.

Fig. 2 - Step-by-step educational planning for Doctor "B"

NEEDS ASSESSMENT - SUBJECT MATTER - LEARNING STYLE	Doctor "B" wants an update in recognizing and treating primary and secondary skin lesions. He prefers to learn by using audiovisual materials as well as by hands-on experience.
DIDACTIC INFORMATION	Doctor "B" views a set of slide-tape programs on basic dermatology along with telephone consultation from the department chairman in dermatology at the medical center.
IMPLEMENTATION OF PRACTICAL INFORMATION	Doctor "B" spends several days in the dermatology clinic at the medical center observing faculty dermatologists plus attending rounds with the dermatology faculty.
EVALUATION	Each phase of Doctor "B"'s educational process is evaluated to determine if his needs have been met. If so, the process begins again.

approach to continuing their medical education and to do so in the most cost-effective way.

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[1]Sivertson, S. E., T. C. Meyer, R. Hansen, et al "Individual Physician Profile: Continuing Education Related to Medical Practice," Journal of Medical Education, 48: 1006-1012, 1973.

AN OUTLINE OF A NONTRADITIONAL GRADUATE SCHOOL FOR ENGINEERS AND RELATED PROFESSIONALS

Raymond C. Watson, Jr.

Southeastern Institute of Technology
Huntsville, Alabama

What is a Nontraditional Higher-Education Activity?

The "Classical" Description:

". . . Nontraditional study is more attitude than a system and thus can never be defined except tangentially. This attitude puts the student first and the institution second, concentrates more on the former's needs than the latter's convenience, encourages diversity of individual opportunity rather than uniform prescription, and deemphasizes time, space, and even course requirements in favor of competence and, where applicable, performance."[1]

Institutional Characteristics for Determining Traditional/Nontraditional Classification:

* Purpose
* Program/Curriculum/Faculty
* Delivery System
* Methods for Learning
* Admissions
* Completion Requirements
* Advanced Standing Processes
* Advising and Counseling
* Learning Resources
* Evaluation Systems

Postsecondary Education Continuum:[2]

Traditional	Nontraditional
Major Emphasis on Structure and Process	Minor Emphasis on Structure and Process
Minor Emphasis on Outcomes	Major Emphasis on Outcomes

Origins of Engineering Education in the United States

* First engineering schools were in France, starting in the mid-eighteenth century. From the start, emphasis was on science and mathematics.

* U.S. Military Academy (West Point) established in 1802 - first engineering school in this country. Patterned programs after French schools. Organized into specific courses covering four-year curriculum. Formed baseline for all future U.S. engineering programs. However, did not grant degrees until 1933.

* American Literary, Scientific, and Military Academy (Norwich, Vermont) first private engineering school and awarded first engineering degre in U.S. - designated Master of Civil Engineering.

Early Growth and Dissatisfaction

In the time between the War of Independence and the Civil War, colleges and universities in U.S. increased from 9 to over 800. In 1860, 13 schools offered engineering programs, but most were not of a practical nature.

Special committee of Massachusetts Legislature investigated Harvard in 1850:

> "The college fails to answer the just expectations of the people of the state. A college . . . should give the people the practical instruction that they want and not a classical literary course suitable only for aristocracy. It should help young men to become better farmers, mechanics [engineers], and merchants."[3]

Graduate Programs

* First doctoral degree awarded in U.S. by Yale in 1860. Graduate study added to engineering in 1893 by Harvard, closely followed by M.I.T.

* Engineering followed academic pattern of arts and sciences and placed advanced programs under the administration of graduate schools rather than developing separate professional schools (such as in medicine and law).

* From inception until WWII, graduate degrees in engineering increased to only about 1,000 master's and 100 doctorates per year.

* Great demand for advanced and specialized programs during and immediately after WWII. By 1950, number per year increased five-fold. Sputnik and related issues generated upheavels in 1960s; production peaked in 1972 with over 17,000 master's and about 3,000 doctorates.

Calls for Change

From Joseph Dillard, President of IEEE:[4]

> "All is not well in engineering education. Our industrial and social environment has changed faster than we realize. Engineering education has changed some, but it has not kept pace with the world around us. In fact, some of the educational changes have been in the wrong direction. Corrective action is called for.

". . . Engineering education has become preoccupied with science. Most educators cannot differentiate between science and engineering.

". . . To restore some of the old skills, the student must stay in school longer than the four years required by the present basic curriculum. He is reluctant to do this in pursuit of a bachelor's degree. If he extends his education to the master's level, he becomes more embroiled in science. When industry tries to hire the master's graduate, paying more for the expected skills, it more likely gets a graduate who has done a scholarly thesis."

From Eric Walker, president emeritus and former engineering dean, Pennsylvania State University:

"Many of the current faculty members . . . have never designed a finished product. They have never seen the shipping platform of industry.

". . . Today, staffing engineering faculties with Ph.D.s is not difficult to achieve. Staffing them with faculty members who have had experience as engineers may be. But students of engineering design should be taught by engineers who do design, just as medical students learning surgery are taught by surgeons and not by biologists . . . So there are engineers who graduate with little or no exposure to engineering because they have not studied with teachers who are engineers. It is a deficiency which must be repaired."[5]

1972 Policy statement, National Society of Professional Engineers:

"The National Society of Professional Engineers supports the earliest feasible transition of colleges of engineering to professional schools of engineering. These professional schools should possess the characteristics listed below:"

(Summarized):

* Total jurisdiction over students, programs, degrees and faculty

* Faculty members, with relevant professional experience, who maintain professional competence as a responsibility rather than an option.

Problems in the Traditional Environment

John Strohbehn and Carl Long, Thayer School of Engineering, Dartmouth College:

"Despite philosophical support of these objectives from national studies . . . and from engineering leaders in industry and government, it is not clear that such professional programs can survive in the academic environment of today's colleges and universities.

". . . We have never been successful in bringing truly qualified senior persons to the faculty . . . The type of people whom we would like to attract are the type who are also extremely attractive to industry, and who in most cases do not find an academic environment, even one oriented towards professional engineering, suitable for their activities."[6]

Continuing Education

* It is well known that continuing education/lifelong learning is imperative for competency maintenance and/or career redirection in the professions. It has also been established that pursuing studies for credit increases the associated learning and resulting value.

* Traditionally, there is a distinct separation between graduate programs and continuing education. However, if both types of offerings are designed truly to maximize their beneficiality to professional practitioners, they become essentially the same.

* "I am convinced that we need to make some fundamental changes in the way we approach engineering education. . . Universities can no longer shirk the responsibility to develop students in their formative years into continuing learners. For older students, we must either expand current institutions for continuous education or learn to work effectively with new institutions developed for this purpose."[7]

Historical Background to Development of Southeastern Institute of Technology

* Space and defense programs in Huntsville, Alabama, generated great demands for engineering and related graduate programs. Response by universities was traditional programs with little or no practical aspects.

* University of Alabama in Huntsville attempted to develop a nontraditional school to meet "continuous education" needs and include nontraditional graduate degrees. Faculty senate repeatedly rejected proposals.

* Local industrial and governmental leaders, approving the proposed programs at UAH, decided to establish an independent institute to offer these programs. Southeastern Institute of Technology began operations in 1976.

Statement of Purpose

Southeastern Institute of Technology was formed and exists for the following primary purposes:

* To develop and provide innovative programs to enable qualified persons to complete academic degrees in selected areas of engineering, management, and applied sciences.
* To provide continuing services in various fields for individuals and organizations.

* To perform research for the advancement of knowledge and the support of academic programs.

* To provide publication services for the dissemination of scholarly work.

* To increase public and professional awareness of the value and applicability of nontraditional programs and methods in higher education.

* To demonstrate how capabilities and facilities from outside of academia can effectively be used to provide educational programs of high quality at a minimum cost.

Guiding Philosophy

* The characteristics and educational needs of mature, experienced adults are quite different from those of regular college students. Thus, degree programs and continuing education for adults should be especially designed and regulated, incorporating where applicable, but not constrained by, components of the traditional system.

* Individuals with the requisite ability should be afforded full rights and access to credentialing in higher education — to academic degrees — without undue penalties because of past performance, time limitations, and curriculum rigidity.

* The quality of an educational program is primarily dependent on the faculty: curriculum developers, classroom lecturers, seminar leaders, research advisers. In career-oriented, specialized programs for adults, the highest quality can best be provided by professional practitioners.

* The traditional college campus no longer has uniqueness as to facilities appropriate for higher education. Many nonacademic organizations have excellent laboratories and libraries which could be used in educational programs, particularly at the graduate level. Institutions should avoid costly duplication, making use of the external facilities to the fullest extent.

Characteristics of the Institute

* Attendees are primarily mature, working adults. Regular admission to graduate programs requires professional experience. Provisions

allow acceptance of well-qualified persons who have not completed an undergraduate degree.

* Lecturers and research advisers are all professional practitioners, participating at Southeastern on a part-time basis. 69% of teaching faculty and 100% of research faculty hold doctorates. Professional experience averages over 20 years.

* Courses are a combination of continuing education and graduate subjects, all designed and presented emphasizing practical applications. Theory is not neglected, but is put into proper perspective as to use in professional practice.

* Schedules are designed to best suit the attendees. There are six terms of eight weeks each year. Classes meet two evenings per week or Saturday mornings for a total of about 35 contact hours per 3-unit course.

* Facilities are patterned after an industrial setting. Meeting rooms are all carpeted and have tables and chairs. Classes may meet in other facilities as convenient. Extensive use is made of outside libraries and laboratories.

Facilities

Facilities are leased in an office building in the central research park of Huntsville. A total of about 9,000 square feet of space is divided as follows:

* Class and Seminar Rooms — 6 rooms seating from 12 to 36 persons

* Laboratories — 1 computer, 1 instrumentation, 1 electro-optics

* Reference Library — approximately 10,000 volumes plus card files for Redstone Scientific Information Center

* Administrative Offices — 5 rooms and 2 conference areas

* Center for Applied Research — 8 rooms

Financial Aspects

* Initiated operations with a $25,000 loan. Repaid within two years

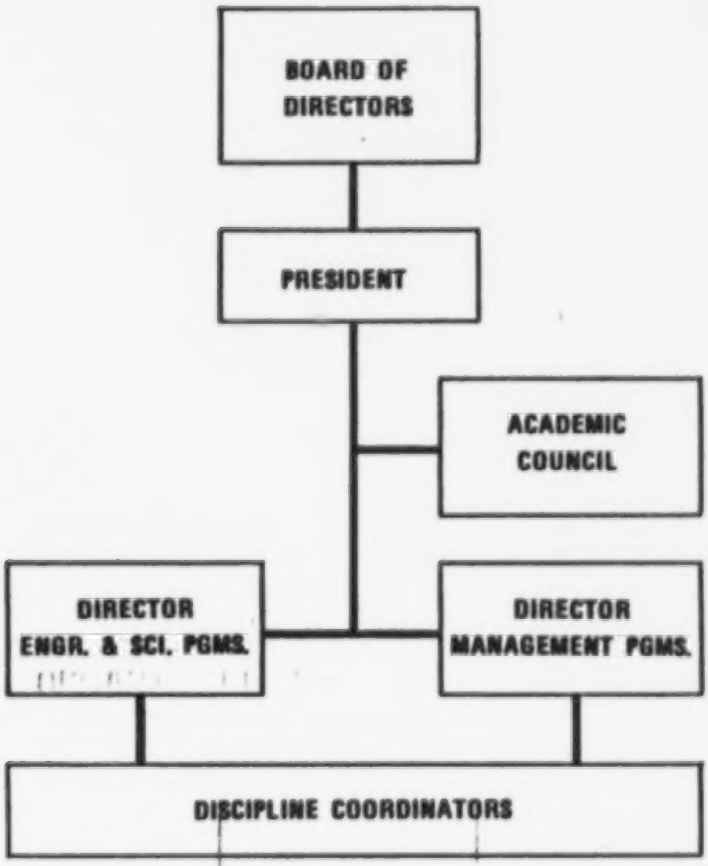
* From first term, have operated "in the black." All instructional and related expense comes from tuition and fees.

* Simple policy: expenses must not exceed revenues

Legal Aspects

*Incorporated as a non-profit organization under the laws of Alabama

ORGANIZATION OF THE INSTITUTE



* Licensed by the Alabama Department of Education

* Tax exempt by the U.S. Treasury Department

Degree and Certificate Programs

Offerings may be taken as continuing education, or they may be formed into programs leading to the following degrees:

* Master of Science (M.Sc.)
* Master of Science in Engineering (M.Sc.Eng.)
* Master of Science in Management (M.Sc.Mgt.)
* Master of Business Administration (M.B.A.)
* Doctor of Science (D.Sc.)
* Doctor of Engineering (D.Eng.)
* Doctor of Management (D.Mgt.)

Southeastern does not offer full undergraduate programs. However, degree-completion programs may be developed for the following:

* Bachelor of Science (B.Sc.)
* Bachelor of Engineering Science (B.Eng.Sc.)
* Bachelor of Administrative Science (B.Adm.Sc.)

The following certificates may also be earned:

* Basic Certificate in Programming
* Certificate in Basic Engineering
* Graduate Certificate (in areas the same as Master's degrees)
* Specialist Certificate (in areas the same as doctoral degrees)

Instructional Programs

Instruction is provided in the following disciplines:

* Electrical and Electronics Engineering
* Aerospace and Mechanical Engineering
* Computer and Software Engineering
* Management and Human Relations
* Business and Governmental Management
* Engineering and Systems Management
* Applied Physics
* Applied Mathematics

Programs emphasize interdisciplinary courses to form areas of specialization at the master's level:

* Applications Programming
* Applied Mathematics
* Business Management
* Computer Systems
* Contracts Management
* Governmental Management
* Human Systems
* Missile Systems
* Radar Systems
* Signal Processing

* Electro-Optical Systems
* Engineering Management
* Systems Management
* Software Systems

Doctoral Program

Doctoral programs are offered in the following areas of specialization:

* Aeromechanical Sciences and Systems	D.Sc.
* Computer Science and Systems	D.Sc.
* Electronic Science and Systems	D.Sc.
* Management of Science and Technology	D.Sc.
* Optical Sciences and Systems	D.Sc.
* Computer and Software Engineering	D.Eng.
* Electro-Optical Systems Engineering	D.Eng.
* Engineering Management	D.Eng.
* Missile Systems Engineering	D.Eng.
* Radar Systems Engineering	D.Eng.
* Management and Human Relations	D.Mgt.

The programs require 75 units (semester hours) credits, with a minimum of 48 beyond the master's coursework, divided as follows:

* 18 units in specialty concentration
* 12 units in analytical skills courses
* 21 units in supporting courses
* 3 units in a qualifying project
* 21 units in research

The research may be in either a single project (applied leading to a dissertation) or in a series of projects with a final work-related demonstration project.

REPRESENTATIVE OFFERINGS
EARLY FALL TERM 1983

10-501	Engineering Review I	Several Instructors
11-301	Electrical Circuits	R. Watson, Ph.D.; Consultant
11-571	Radar Systems	S. Gilbert, Ph.D.; Dynetics
11-581	Signal Processing	R. McKee, Ph.D.; Army Msl. Cmd.
14-511	Stress Analysis	J. Hearne, M.S.E.; Teledyne
14-521	Applied Aerodynamics	T. Greenwood, Ph.D.; NASA MSFC
17-301	Computer Programming	M. Polan, M.Sc.; Teledyne
17-309	Programming Laboratory	J. Montgomery, B.S.; Consultant
17-514	Computer Data Structures	M. Hallum, D.Sc.; Army Msl. Cmd.
17-551	Microprocessor Systems	J. White, Ph.D.; Gen. Elect.
17-622	Advanced Programming	J. Brookshire, Ph.D.; Army Msl. Cmd.
17-631	Artificial Intelligence	V. Kobler, Ph.D.; Army ATC
21-513	Leadership Development	P. Williams, D.P.A.; Data Com.
21-611	Management Responsibilities	D. Jackson, Ph.D.; Consultant
21-695	Seminar: Megatrends	R. Shuford, D.B.A.; Consultant
24-552	Contracts Management	E. Andrzejewski, M.B.A.; Teledyne
24-632	Information Accounting	R. Shuford, D.B.A.; Consultant
27-671	R&D Planning and Control	J. Kobler, D.Sc; Consultant
31-303	Elements of Calculus	R. Covelli, S.M.; Sys. Dev.
31-511	Applied Statistics	M. Rheinfurth, M.S.; NASA MSFC
34-541	Contemporary Optics	P. Poulsen, D.Sc; Adjunct Sys.
34-671	Particle-Beam Systems	T. Roberts, Ph.D.; Army Msl. Cmd.

SOUTHEASTERN INSTITUTE OF TECHNOLOGY

EVALUATION REPORT

COURSE TITLE: AVERAGES FOR FIRST FIVE YEARS DATE: 1976-1981

This questionnaire provides you an opportunity to evaluate this course, the way it has been presented, and its instructor(s). Write comments on the reverse side of this sheet. In Parts I and II, use the following rating numbers:

1-poor, 2-fair, 3-satisfactory, 4-good, 5-excellent

PART I - COURSE ORGANIZATION AND FACILITIES

1.	Objectives clearly identified at the start of the course:	4.40
2.	Agreement between announced objectives and what was actually taught:	4.38
3.	Information as to requirements (attendee's work, evaluation, etc.):	4.37
4.	Organization of instruction (relation of parts to the whole):	4.39
5.	Effective use of time (amount of material versus course time):	4.40
6.	Instructional materials (textbook, special notes, etc.):	4.22
7.	Classroom and related facilities:	4.26

PART II - INSTRUCTOR(S)		Instructors' Initials:
	Rate each instructor in this course individually:	___ ___ ___
8.	Indicated knowledge of the subject by lecture presentation and clarity of response to questions:	___ ___ 4.71
9.	Appeared personally competent in the teaching situation (tact, force, humor, poise, sincerity, appearance, etc.):	___ ___ 4.70
10.	Spoke in a clearly understandable manner:	___ ___ 4.58
11.	Compared to other instructors that you have had, rate the effectiveness of the instructor(s) as 1-lowest 10%, 2-lowest 30%, 3-about average, 4-highest 30%, 5-top 10%:	___ ___ 4.34

PART III - PERSONAL

12.	For my background and ability, the level of difficulty of this course was 1-very elementary, 2-somewhat elementary, 3-about right, 4-somewhat difficult, 5-very difficult:	3.28
13.	FOR CREDIT REGISTRANTS ONLY. As compared with similar courses that I have taken, I found the work load to be 1-much lighter, 2-lighter, 3-about the same, 4-heavier, 5-much heavier:	3.14
14.	I would rate the overall value of this course to me to be 1-poor, 2-fair, 3-satisfactory, 4-good, 5-excellent:	4.28

Problems and the Future

* Primary problems stem from lack of regional accreditation. The Southern Association of Colleges and Schools does not accredit such nontraditional schools, and there appears little hope for any significant changes.

* Lack of accreditation results in ineligibility for government loans, grants, and other financial assistance. Veterans may only receive tuition. Active military cannot receive regular tuition assistance. Some industries will not sponsor attendees.

* Total dependence on part-time personnel does not provide a high level of long-range continuity and perpetuity.

* Plans are to increase research activities, bringing full-time personnel into the Institute as researchers but also assisting with the instructional programs.

* It is believed that institutions of a similar nature will continue to develop, providing specialized programs, and complementing the activities of "traditional" schools.

Footnotes

1) Samuel B. Gould, "Preface," Diversity by Design. Jossey-Bass, 1973.

2) Grover J. Andrews, "Assessing Nontraditional Education," North Central Association Quarterly, 53 (Winter), 1979.

3) Samuel E. Morison, Three Centuries of Harvard. Harvard Univ. Press, 1936.

4) Joseph K. Dillard, "Professional Schools of Engineering - A Call for Action," IEEE Trans. Ed., E-19 (Nov.) 1976.

5) Eric A. Walker, "Teaching Research Isn't Teaching Engineering," J. Eng. Ed., 70 (Jan.) 1978.

6) John W. Strohbehn & Carl F. Long, "Professional Engineering Education at The Thayer School of Engineering," Proc. IEEE, 66 (Aug.) 1978.

7) Myron Tribus (Director, Center for Advanced Study, MIT), "The Challenge of Continuing Education," J. Eng. Ed., 69 (May) 1977.

GRADUATE LIBERAL STUDIES - GRADUATE LIBERAL ARTS

Phyllis O'Callaghan

Georgetown University
Washington, D.C.

I will begin with a riddle. What do a psychiatrist, a mother of five studying to be a rabbi, an anesthesiologist, a music teacher with a doctorate in voice, a priest in pastoral counseling at a mental institution, an Air Force major who flies Congressmen and executive officials around the world, a poet, two Thai diplomats, and an administrative official in the Secret Service have in common? At Georgetown University they are all graduate students enrolled in a Master of Arts in Liberal Studies program, a new kind of master's degree, non-traditional in character, in goals, and in student body. These three distinguishing characteristics of graduate liberal studies are interrelated and are basic to understanding these programs. I shall attempt to define and explain the essentials of graduate liberal studies, using the program at Georgetown as a specific and detailed example of a wider movement in non-traditional graduate education.

Most of us remember the traditional master's degree program as highly specialized, usually an extension (in depth) of an undergraduate major, probably a station on the way toward ultimate specialization at the doctoral level. In traditional, discipline-based master's programs you learn more and more about less and less, or you learn more and more about a confined area of knowledge, thus to become a professional in a discipline and in a particular area of that discipline. You are analytical rather than synopic; a scientist rather than a Toynbee.

If you compare this general model of the traditional master's program with the Liberal Studies degree you will find some major differences. First, graduate liberal studies degree programs are not discipline-based; the major is not A LIBERAL ART, but rather liberal arts. This would not be unusual at the undergraduate level; but these are graduate degrees. To say that these programs are not discipline-based means not only that there is no single major but that they are interdisciplinary in content. Another characteristic of graduate liberal studies is the individualization possible, not just through independent study, but through accommodating the special needs, interests, and experience of the student. Finally, at Georgetown we seek to make explicit and academically respectable questions of human value which are implicit in all the programs because they are based in the liberal arts. We agree with Cleanth Brooks, who concluded in an interview that "the great teachers in the humanities have examined human values. ..."

Graduate Liberal Studies began at Wesleyan University in Middletown, Connecticut, thirty years ago. A summer program to complement and enhance liberal arts education for teachers, the Wesleyan M.S.L.S. now

attracts some 500-600 students in the summer courses and has expanded into the full academic year, while broadening the occupations represented by the students.

The idea for graduate liberal arts education caught on and by the spring of 1975 twelve colleges and universities met at Hollins College near Roanoke, Virginia, to organize a national, professional Association of Graduate Liberal Studies Programs (AGLSP). The charter members besides Wesleyan included Johns Hopkins University, the New School for Social Research, St. John's College at Annapolis and Santa Fe, Southern Methodist University, the University of Oklahoma, Hollins College, Metropolitan College of Boston University, Dartmouth College, the University of Southern California, Georgetown University and the University of Michigan-Dearborn.

Today the Association has grown to over 60 members representing metropolitan and rural areas, public and private institutions, and at least three designations for the degree: the Master of Arts in Liberal Studies (M.A.L.S.), the Master of Liberal Studies (MLS), and the Master of Liberal Arts (MLA). The partial list shows the geographical and institutional diversity that characterizes the membership of the Association.

There is also a wide diversity in the individual programs. Some colleges and universities gear their programs to educators, as was the original example at Wesleyan, and thus sponsor mainly a summer program (Hollins and Dartmouth, for example). Others attract a much wider student body and are operated throughout the academic year. No two programs are exactly alike, as each institution has built upon its own strengths, special interests, and potential student body. Some are highly structured, with a series of seminars in the humanities forming a major part of the course work. St. John's College offers a completely prescribed course of study, while at Southern Methodist University specific courses are not required, though, as at Georgetown University, all courses in the program are created especially for the graduate liberal studies program. In many cases programs require a certain number of specific courses and then allow a selection of electives from other graduate offerings in the humanities/liberal arts (such as at Mary Washington College in Fredericksburg, Virginia, and at the University of Maine at Orono).

In 1981, the Association of Graduate Liberal Studies Programs, reflecting the growth in membership and the desire for a more explicit statement of goals and criteria for membership, revised the constitution of the Association. The new constitution succinctly describes the character of graduate liberal studies as follows:

> Although the programs represented by the Members of the Association vary considerably in size, organization, sponsoring institutions, and details of curriculum, they share a common purpose: to offer mature students a graduate degree which is interdisciplinary in nature and non-

> professional in intent (that is, not specifically intended to train students for a particular vocation), to provide accreditation for a profession, or to prepare students for further graduate study. The programs specifically adhere to the values of liberal arts education, but at the graduate level, offering students drawn from a variety of backgrounds and professions an alternative to the usual specialized programs.[1]

This characterization of the graduate liberal studies program indicates what draws to our Liberal Studies Program at Georgetown the diverse and exciting group of students I mentioned at the beginning of this presentation. Attraction for adult learners and dedication to interdisciplinary learning emerge as two major distinctive features of graduate liberal studies.

The term adult learners really has nothing to do with age or with taking courses on a non-credit vs. credit basis. Adult learners in this context are students with professional, intellectual, and personal maturity and experience (I refer again to the students I mentioned earlier). Competent, highly trained, and motivated, professionally successful, these students return to school surfeited with specialization and the kind of technical information they have had to pursue for their professional advancement. As a psychotherapist in the Georgetown Program phrased it, the Liberal Studies Program was for him "a reversal in my habitual approach to learning," an approach he had found "mechanistic" and highly technical from preparatory school through the Naval Academy and then medical school.

"My participation in the Liberal Studies Program," writes a lawyer who has graduated from the program, "initially amounted simply to an exercise for my brain." He thought that after nearly fifty years he needed "mental stimulation. My education, in my judgment, had been inadequate in certain respects, and I viewed myself as having had essentially a vocational training experience in college and law school." For one and all it is indeed continuing education within the confines of a structured yet flexible degree program.

The second distinctive feature of these programs and of special importance is their interdisciplinary approach. The objective as described by the Association of Graduate Liberal Studies constitution is

> to provide an alternative approach to continued learning by offering a program for students who seek broad, interdisciplinary paths to knowledge - and normally, to do this for student bodies comprised of part-time students. ... In summary, the intention is a unified liberal arts curriculum at the graduate level.[2]

This alternative approach to continued learning is exactly what the adult students in these programs seek. Inevitably they will say that they are looking for a structured program (they are used to structure and

realize its academic value) but they resist rigid departmentalization and course requirements. How do the liberal studies programs meet these needs and yet constitute a degree program?

Most of the graduate liberal studies programs have one or more required or "core" courses that are interdisciplinary. Core courses may be a history of ideas seminar series, such as those at Johns Hopkins or the New School for Social Research in New York, or a sequence of specifically designed courses, like those at the University of Southern California. At Georgetown we require two Human Values courses, but these particular courses change each semester, so ultimately the student has a wide choice.

Core seminars, all of them interdisciplinary, provide the fundamental element of the program at the University of Maine at Orono. At Kean College in New Jersey there is an introductory required interdisciplinary seminar and towards the end of the program an advanced interdisciplinary seminar. At Boston's Metropolitan College the core consists of six required interdisciplinary seminars exploring the Humanities, Natural and Physical Science, and Social Science. At Loyola College, Baltimore, the core curriculum is centered on three themes and one course from each is required. The variety is almost infinite; there is definite structure but there is flexibility as well; the latter is certainly greater in these programs for these particular students than is the case with most master's programs for traditional students.

While core courses may be expected to be interdisciplinary, electives, in the program may be as well, as is the case at Georgetown. A course may derive its interdisciplinary character from team teaching, as for example at Mary Washington College and at Xavier University in Cincinnati. Or courses may be so constructed that they cross disciplinary lines although taught by a single, discipline-based teacher, as at Georgetown and Southern Methodist University. Interdisciplinary course construction and execution are key to liberal studies programs. We are all experimenting with crossing disciplinary boundaries in one way or another. At Georgetown we carefully instruct potential teachers in the program about the need for viewing their subject in a synoptic fashion, organizing their course around a topic or theme, and avoiding disciplinary specialization. We have a Curriculum Committee to review all course proposals.

Specific examples from the Georgetown graduate liberal studies program may bring the degree into focus. At Georgetown each student must complete a total of 30 hours for the Master of Arts in Liberal Studies. Of the ten courses, two must be human values courses. These courses directly address questions of human value, such as the nature of moral growth, human freedom, comparative values in major world religions, theories of justice, human purpose, war and peace, and personal and professional ethical questions. Of the two courses, one must be a human value core course, taught by faculty who have been with the program for some time, who have served on the Executive Council, and who are prepared to introduce the student to 1) the interdisciplinary approach in

graduate study and 2) the values synthesis. Our human values courses, both core and non-core, change each semester; the core courses are repeated at least every other year.

For example, one of our core courses is "Values in Conflict," which examines a number of areas in current social life in which values actually conflict. Students read books by Margaret Mead and Erik Erikson, as well as selections from Aristotle, Plato, and Aquinas, view classic films such as Padre Padrone and Death of a Salesman, and discuss plays relevant to the theme, such as Oedipus Rex and Hamlet. The interdisciplinary approach pervades the course.

In the hands of a theology professor another course deals with "Alienation and Self-Identity," and describes the individual's quest for self-identity and his/her involvement with others and with the demands of society that can give rise to such problems as alienation or withdrawal and despair. From an interdisciplinary perspective, the class explores the nature of the human "self" and its relation to society, contrasts the "alienated" individual with the "revolutionary" and examines concepts of "God" and "World" as "alien other" in the writings of Sartre, Berger/Luckmann, Freud, Joyce, and others.

"Meaning in History" considers whether human history has a meaning or purpose outside itself or within. Taught by a historian, with individual lectures offered by a theologian and a philosopher, the course seeks to determine if there is a pattern into which the totality of events fit. Is this a subject appropriate to historical thinking, or to some other way of knowing, another kind of knowledge? Then the students examine the answers of such thinkers as St. Augustine, Voltaire, Hegel, Vico, Marx, Spencer, and Toynbee.

The Human Values courses that are not captioned as "core" are similar in the subject matter to the core courses, but they do not engage as broad a subject matter in as ostensibly an interdisciplinary mode. They do directly confront questions of value. For example, "A World in Process" deals with contemporary scientific and philosophical visions of a world in process, and the myths, metaphors, and paradigms whereby we consider the question of human destiny. Readings from Alfred North Whitehead, C. Harshorne, and Teilhard de Chardin are used.

"Greek Ethical Thought" considers early Greek views about the relation between ethics and religion as reflected in Archaic poetry and in Aeschylus. In the second half of the fifth century the writings of the Sophists and some passages in Thucydides document crises in Greek thought and values. After an examination of the values of these earlier periods, this course focuses on the new foundation for moral values established by Socrates and Plato.

"Morality in Literature and the Media" builds upon the life experience of Liberal Studies students and uses moral problems as they exist in literature and media. the course aims to develop moral awareness and the moral imagination that will assist them in making good

choices. Beginning with a reading of Aristotle's Nichomachean Ethics and a modern companion work, Henry Veatch's Rational Man, the course includes a discussion of a Shakespearean play, various early and contemporary works selected by the students, and a movie or television program to be viewed and discussed in class.

"Professional Ethics" recognizes that both written and unwritten ethical codes guide decision-making in the various professions, and that all such codes are undergoing profound change. This course examines the background and direction of this change, with particular reference to education, economics, politics, law, and medicine.

Whereas in many cases electives are drawn from a wide selection of graduate offerings, as indicated before, at Georgetown electives are courses especially created for the program. The student may choose electives from three areas: Humanities, Social/Public Policy, and International Affairs. While taught by professors in specific disciplines, each course approved must convey a sense of the interdisciplinary, the "synoptic," and a sense of questioning. A few examples might help at this point.

An English professor teaches "Fragmentation and Reintegration" using T. S. Eliot, Picasso, Sartre, Tillich, David Smith, and Henry Moore to attempt better to understand some of the available psychological, aesthetic, and moral options current in a modern world of chaotic images, incoherent messages, and confusing and contradictory values.

A political scientist teaching "The World Power Balance and Current International Issues" questions why politics are so savage. He then explores the nature of the nation-state system as well as various questions concerning the elements and balance of power in the modern world, idealism and realism in foreign policy, methods of controlling the power struggle, and specific regional power balances and their links with world power.

"Social Policy and the Older American" reviews such issues as National Health Insurance, death with dignity, compulsory vs. flexible retirement, the intergenerational spending controversy, and the treatment of women under Social Security. All are major social policy issues affecting aging Americans. The present and future impact of the "graying" population on our society is emphasized as the course examines in depth the substantive and political considerations influencing the development of social policy for older Americans.

The historian who teaches "Global Arms Transfer: Policies, Problems, and Prospects" deals with the reality of a $20 billion a year trade in arms and the role of the United States concerning this merchandise. The course examines trends in the nature, structure, magnitude, and distribution of world arms flow with special attention to the role of arms transfers in the foreign policies of the principle suppliers. The

evolution of the current situation, motives, methods, and moral aspects, as well as policy choices, constraints, and consequences are discussed.

Focusing on specific themes, issues, questions, and problems, the courses allow and encourage the student to confront intellectually the perennial, and current, problems and recurring questions that human beings pose about their own identity, mankind's past and future, unique national experiences and conflicts, international behavior, and humankind's place in a threatened environment. Thus, the values orientation of the program is pervasive and critical to the identity of the Liberal Studies Program at Georgetown. For ten years we have been doing what William J. Bennett, Chairman of the National Endowment for the Humanities, suggested recently in The Washington Post: namely, raising the crucial questions of the humanities with our students. He gave as examples such questions as "What is noble or base?" "Why do civilizations flourish or fail?" "What is the difference between right and power?" and concluded that these questions have caused civilizations to emerge, nations to develop, and wars to be fought. Our courses pose these questions, and expose these issues.

At Georgetown the integrating feature of this degree program is a reflective essay required of each student one-third and two-thirds of the way through the program. In these essays students must discern and define a theme that they are pursuing as they independently, but with advice and assistance, work their way toward the master's degree. They describe the courses they have taken and how they are unified within a larger theme or interest.

The theme may turn out to be job related, although the courses and the degree program are not so directed. I think in particular of a Capitol Hill Congressional staff member whose essays have revealed that his courses center on the relationship of political thought to political action; in particular, "how my political thought affects my political activity," a theme that had grown out of his initial broader concern with "the relationship between what we think and what we do, between our preoccupation and vocation." To answer this question he had taken courses in political theory, but also in philosophy, theology, and literature. A policy captain in the program, with an undergraduate degree in the administration of justice, has pursued the nature of the system of justice in this country, specifically seeking to answer the question: are objective criteria for a justice system possible in a democracy? Experienced in the administration of justice, he questions its rationale.

The last course in the program is the Final Seminar, required of all students. During this semester the student, under the direction of a mentor, writes a major research paper or less frequently, carries out a major project. A project, for instance, could be writing a one-act play, as was the case with a teacher from a school specializing in Fine Arts. Right now we have a student writing a novel which is a study of values through stories. The woman preparing to be a rabbi has not only pursued this interest through her courses, selecting her papers to fit this

interest, but her final semester topic became a study of Jewish martyrdom. Another student, interested in the limits of growth, is writing her final paper on "Population Law and Policy: Precedent and Ideal." Other titles include "Nuclear Disarmament," "Is There Honor in Disclosure? An Examination of the CIA Oath of Secrecy," "Process Theology: How it Deals with God and Evil," "Drinking, Drugging, and Human Freedom," and "Values Indoctrination in the Marine Corps." In these topics the students endeavor personally to integrate the special interest or theme that they have carried through the whole program; thus, it is a culminating research project.

I have not talked about quality control, scheduling, faculty selection and monitoring, the administrative duties of the Director of the program, and special student services required. All of these are important elements if you plan to start a program. The Association of Graduate Liberal Studies Program began in 1977 to hold workshops for institutions interested in establishing graduate liberal studies programs. The Fund for the Improvement of Postsecondary Education funded two extended workshops, 1980-81.

Graduate liberal studies programs are non-traditional graduate programs in the sense I have tried to explain. But some very traditional schools, and I include among these Georgetown, offer these programs. Not only has FIPSE shown an interest in their development, but six graduate liberal studies progams, namely Dartmouth, Hollins College, Johns Hopkins, St. John's, Wesleyan and Georgetown, have received grants from the National Endoment for the Humanities to hold Institutes in the Humanities for teachers. Other colleges and universities trying to start programs have received NEH grants for that purpose, including Kean College in New Jersey and Xavier University in Cincinnati.

This thumbnail sketch of the graduate liberal studies program at Georgetown University will, I hope, help to illuminate what is new, different, and distinctive about graduate liberal studies. If you analyzed the program at any other school you would find the similarities I mentioned and differences. Georgetown, a very traditional school embedded in the humanities, revels in courses like "Mr. Jefferson's Reading List," "Literary Knowledge and Human Values," and "Approaches to the Person: Existentialism in the 20th century." We, of course, like the other schools offering graduate liberal studies programs, play from our strong hand.

In the final reflective essay of one of our students I found a paragraph that speaks for many of the students and the programs as well. I offer it as a concluding note. This student wrote:

> I have been asked a number of times what I was going to DO with my MLS degree. While my improved attitude, increased awareness, and generally more alive approach MAY inspire me to DO something. . .that is not what this program of enrichment is all about. It is about THINKING and BEING, and is entirely justifiable on these grounds.

That is, after all, enough, and it reminds me how relative is the word traditional.

References

1 See the Constitution for the Association of Graduate Liberal Studies Programs available from the President of the Association, Dr. Allie Frazier, Hollins College, Virginia.

2 Ibid.

PREREQUISITES AND THE NONTRADITIONAL STUDENT

Robert S. Trullinger, Jr.

Central Michigan University
Mt. Pleasant, Michigan

Nontraditional programs in higher education face many problems in adapting campus-based academic programs designed for traditional students to the needs of adult working students who wish either to complete a degree begun a long time before or to earn a new degree which is more relevant to the individual's career and personal aspirations. These programs attempt to accomplish two separate but related goals. First, they seek to make available the academic programs that adults want and need in formats that will allow them to pursue their academic goals and still meet their responsibilities. Secondly, the nontraditional program strives to maintain the same, or even higher, quality as is found in the traditional campus programs. Although many of the quality control mechanisms which have been used on campus for decades are not appropriate to the nontraditional program and their effectiveness within the campus programs goes unquestioned, accrediting and licensing bodies and campus faculty continue to demand that nontraditional programs use the traditional quality control mechanisms even though they may not accomplish the desired ends.

This situation is particularly true in regard to the enforcement of prerequisites in nontraditional graduate level programs and undergraduate degree completion activities. Upper level undergraduate and graduate courses are designed for the traditional campus student who usually has been involved in a formal learning process for twelve to sixteen years, with very little practical experience outside of specific assignments and internships associated with courses or programs of study. The student is introduced to the subject matter through classes which take him or her into progressively more depth and detail. Higher level courses require the students to have specific lower level courses in order to enroll. Because the traditional student has generally experienced the subject matter only through course work, the listing of prerequisite courses seems to be necessary and effective in traditional education.

Prerequisites are established by the academic departments in the process of building a curriculum. In some departments, such as the natural sciences, mathematics, and foreign languages, prerequisites are used extensively to assure that the student moves through the curriculum in a prescribed sequence with little or no deviation. In other disciplines, such as history, English, and the social sciences, the emphasis is on having the students take introductory courses which expose them to the field and then allowing them to take upper level courses as they wish. Through prerequisite courses, departments attempt to assure that students have the specific information and skills necessary to complete the advanced course successfully. Particularly in graduate programs, the enforcement of prerequisites is seen as important because

the classes must be taught at an acceptable graduate level. If time is spent on undergraduate work which the students should have mastered before entering the class, then the course is not genuinely graduate level.

However, the traditional system of prerequisites is largely inappropriate in programs designed for adults. Adults who have been out in the working world and who have learned much from both work and training experiences as part of their jobs often have gained skills and knowledge which are a part of the college or university curriculum but which are not wrapped in the convenient course packages found on campus. While they may not have the prerequisite courses designated by the academic department, they may have the skills and knowledge required to function at the expected level in the course. On the other hand, adults occasionally have prerequisite courses listed for a specific course but took those courses many years before, and the currency either of the student's competency in the subject or of the course content has long since eroded. Consequently, methods must be devised which will allow the nontraditional program to assess the adult students' fulfillment of the spirit of the stated prerequisites in a manner relevant to the diversity of their learning experiences.

The first step toward developing such a system to assess the nontraditional student's mastery of the prerequisites is to identify just what exactly the stated prerequisites are attempting to accomplish. Most often, the courses listed as prerequisites contain specific skills and information which will be utilized, but rarely is the entire course content essential. It is important in developing an assessment system to identify precisely the discreet skills and information that the students need to gain the most from the class. The faculty members should be encouraged to distinguish between what they would like the students to know and what the students need to be able to do at the beginning of the course. Often the faculty are surprised at the difference between the two.

Instructors often have not systematically articulated the specific skills and information that the student must possess on entering the course. To facilitate the process, a staff person with instructional development background should work with the instructors who teach the courses with stated prerequisites to determine and articulate what it is precisely that the students should be able to do on entering the class. In many cases they indicate that the students should have command of the specialized terminology, statistical functions, or particular concepts which are only a small part of the courses listed as prerequisites. Sometimes departments demand a series of courses as prerequisites, but conduct the class with little or no need for the student to use the skills associated with the prerequisites. Through being asked to look beyond courses to discreet skills and information, the departments sometimes find that they need to review thoroughly their own listed prerequisites. In this phase of identifying specific entry-level skills it is important to involve as many instructors as possible who teach the course within both the traditional and nontraditional structures.

Instructors in the nontraditional program may have very different ideas about what students should be able to do on entering the class and have a deeper appreciation for the practical skills possessed by adults.

Once the skills have been precisely identified, the staff member and the instructors should develop a lucid and detailed description of the prerequisite skills and knowledge so that the advisers and students will know exactly what is required for success in the course. This is particularly important for adult students because the adviser will need to work with the students to determine if indeed they have the skills. Because of the variety of experiences and the various depths of learning that each individual student has, the adviser must be ready to determine accurately how each experience relates to the course prerequisites. Adult students may have extremely sophisticated and deep knowledge of a certain specialty area that is equivalent to graduate level work but have only lower division undergraduate awareness in correlative areas. This makes it particularly difficult for the adviser who must judge the student's skills against the description of those identified by the instructors as necessary in a particular course.

In traditional programs where there are specific prerequisite courses that need to be taken, the adviser only has to make certain that the student has taken the prescribed courses. However, in a system which emphasizes possession of specific skills and knowledge, the actual determination of whether or not the student has what is necessary is much less regularized. The adviser must use whatever tools are available to make the assessment, but, as mentioned above, it is necessary for the adviser to have complete and detailed descriptions of the entry level skills for each course to use as the criteria. There are several means that the adviser may employ in making the assessment of the student's level of preparation for a course. The adviser may discuss with the student his or her experiences and how they relate specifically to the course prerequisites. This includes exploring credit and non-credit course work the adult has had, skills that are used as part of the person's job, and other relevant activities that the student has undertaken which would demonstrate conclusively whether or not the person has the described prerequisites. From this discussion the adviser may be reasonably certain that the student is adequately prepared to take the course. If the adviser is not convinced regarding the student's level of preparation, he or she may utilize another means: the diagnostic instrument. Developed by a staff member and the instructors of the courses which call for prerequisites, the diagnostic instruments should be based on the identified prerequisite skills and knowledge and be composed to address each individual objective. If constructed well, the diagnostic instruments can give the adviser a good assessment of the student's entry-level skills.

In essence, the diagnostic instruments not only give the adviser important information about the student's genuine skills but also provide the students with practical examples of the work required in the class. For adults this latter benefit is invaluable. The adult sees the work which he or she must do and, if diagnosed proficient in the required

skills and knowledge, he or she will be able to proceed with confidence that the work can be done satisfactorily. On the other hand, the adult student who finds that he or she does not possess the required entry-level skills will be more willing to undertake activities to raise his or her skills to the necessary standard.

Once the assessment of a student's entry-level skills is made, the adviser must indicate to the student what should be the next step. If the student has demonstrated the required skills through either the discussion with the adviser, diagnostic instruments, or examination, then he or she should register for the course. If the adviser determines that the student does not have some or all of the skills necessary for the course, the student must be directed to acceptable and available methods for correcting these deficiencies.

For adult students, the most acceptable method of attaining the necessary skills and knowledge is usually not by taking the prerequisite courses. As mentioned above, their skills levels are often uneven, and courses might contain some information that the adult needs but also much that has already been mastered. Consequently, other methods should be designed to help the students gain the needed skills. One excellent method is through compressed non-credit workshops which are constructed specifically to address those skills and information which have been identified by the instructors. As opposed to taking full courses which contain information not germane to the prerequisites, the students get just what they need. Because of the compressed nature of the workshops, adult students can take them without committing a whole term to a prerequisite course and can complete them immediately prior to taking the course or courses for which the skills are needed. Also, the cost for such workshops can be kept low.

These workshops can achieve the purpose of the prerequisites if they are carefully constructed by the same instructors who identified the essential prerequisites and helped write the diagnostic instruments. The workshops' syllabi should be approved by the academic departments and/or curricular bodies as being genuinely equivalent to the listed prerequisites for the higher level courses. By demanding that the instructors who teach the workshops follow the prepared outline very closely, the institution and its nontraditional program can be assured that with successful completion of the workshop the student is ready to do the work in the course.

Another method of helping adult students gain the necessary skills where they have very specific deficiencies is through self-instructional materials on each individual prerequisite skill or grouping of similar skills. By using an objectively-based diagnostic instrument, the adviser will know exactly which areas the student has not mastered. If self-instructional materials have been referenced to the individual objectives, the adviser can give the student materials designed to address the specific objectives that need attention. The benefit of this system for the student is that it targets the student's precise deficiencies and has him or her work only on those narrowly defined

problem areas. For the institution, this system allows each student's deficiencies to be dealt with on an individual basis without having to schedule the workshops for students whose weaknesses are limited and spotty. However, there are some drawbacks. The use of self-instructional materials is not very effective for students who have mastered few, if any, of the required skills. A student who is generally deficient will have a tough time attempting to gain the prerequisite skills without an instructor's help. Also, the discipline imposed by a class or workshop is helpful in getting the adult student through a large amount of difficult, and possibly threatening, material. A serious drawback for the institution is that this method is costly, as it necessitates either developing the materials on an objective-by-objective basis internally or finding published materials which can be referenced to the individual prerequisite objectives. Before an institution opts for this method, it must determine the usual level of preparation of its adult students in each program area. If they generally lack the wide range of prerequisites for advanced course work, then the institution should rely most heavily on either formal classes or workshops. If, however, the students are usually well prepared for the courses, the self-instructional materials approach may be justified.

Of course, the subject matter involved is very important in making the decision. Many adult students lack quantitative skills or are afraid of courses requiring such skills. If the students do not have much of a quantitative background, they might need credit classes or intensive workshops in order to step into upper level or graduate courses requiring such skills. However, if they had some course work long before or if their job experience has required the use of some quantitative skills, compressed schedule workshops and self-instructional modules will allow students to refresh their previous knowledge and skills or to fill in gaps. On the other hand, for some disciplines, such as accounting, economics, and the social sciences, the mastery of discipline-specific terminology and concepts may be the principal goal of the listed prerequisites, and these skills can be obtained by reading a short introductory text or other specially developed materials.

Regardless of the methods used for helping the students gain the necessary entry-level skills they need in some relevant and realistic manner, students must demonstrate that the previously determined deficiencies have been eliminated and the skills have been mastered. In cases where workshops are used, successful completion is the best way to make the determination. The workshop's content is geared so closely to the prerequisite skills that successful completion immediately preceding the class provides reasonable assurance that the student is ready to take the class. Students who have used the self-instructional materials should meet again with the adviser in order to demonstrate that the previously identified weakness has been corrected. The adviser might use a diagnostic instrument again to be assured that the student is ready for the class.

Under any circumstances the proof of the system comes in how well the students perform in classes requiring prerequisites. Instructors must be

discouraged from going back over material that is embodied in the prerequisites and be encouraged to demand that the students function at the appropriate level for the course. Often instructors will believe that it is their moral obligation to teach to the level of the students, even when they lack the prerequisite skills listed in the catalog. Instructors in classes that have large numbers of adult students often are too lenient about prerequisite skills and will "water down" the course content to meet the students' needs. Such erosion of academic quality harms the students and gives higher education for adults a bad name. With the establishment of an effective prerequisite skills program, the instructor can be reassured that the students have been given every opportunity to be current in the prerequisite skills and that any who do not demonstrate the necessary proficiency should be graded on the basis of standards appropriate to the course. This policy is justified because every effort has been made to make certain that the students have the expected entry-level skills and the means have been made available for them to rectify any deficiencies.

In addition, an important aspect of a realistic and relevant system of enforcing prerequisites in a nontraditional program is for adult students to have the opportunity to see the type of work that will be expected before they enter the class. If the student finds that he or she can do the entry-level work, he or she will be able to proceed with confidence. Such confidence building is always important to adult students, who tend to question their ability to do the academic work and to flee from intellectual obstacles, both real and imagined. If the student is not prepared for the work, the workshops and self-instructional materials will help the nontraditional student prepare for the class. The student who has learned what his or her exact deficiencies are and has worked to resolve them will have overcome the obstacle and will enter the class with a confidence based on the knowledge that he or she has proven himself or herself and will be psychologically and academically prepared to get the most from the experience.

Prerequisites in the nontraditional program are very important, but they must be examined carefully and realistically so that the instructors, the advisers, and the students know exactly what they are supposed to accomplish. Once this has been done, the means of meeting those clearly defined prerequisites can be constructed with the purpose of honing in on the crucial points rather than using a scatter-gun approach based on the hope that the student will pick up what is essential from the course that is presented. By assessing the adult student's possession of the designated entry-level skills before the class begins, the student and the adviser can be certain of where the student really stands, not just where they think he or she stands on the basis of academic records or experience. While this system might be cumbersome for the traditional student in a traditional program, it is important for the nontraditional student who is progressing more slowly and often long after the last traditional experience, yet with more knowledge and skills based on working and functioning actively in the non-academic world. A well-designed prerequisite skills component in the

nontraditional academic program increases the opportunity for adult students to succeed in their educational pursuits and to accomplish the goals that have brought the students to higher education in the first place.